

## WEB PROGRAMMING LAB

**6. Apply HTML, CSS and JavaScript to design a simple calculator to perform the following operations: sum, product, difference, remainder, quotient, power, squareroot and square.**

### **Expt6.html**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Simple Calculator</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

  <div class="calculator">
    <h2>Simple Calculator</h2>
    <input type="text" id="input1" placeholder="Enter first
number">
    <input type="text" id="input2" placeholder="Enter second
number">

    <div class="buttons">
      <button onclick="calculate('sum') ">Sum</button>
      <button
onclick="calculate('difference') ">Difference</button>
      <button onclick="calculate('product') ">Product</button>
      <button onclick="calculate('quotient') ">Quotient</button>
      <button onclick="calculate('remainder') ">Remainder</button>
      <button onclick="calculate('power') ">Power</button>
      <button onclick="calculate('square') ">Square</button>
      <button onclick="calculate('sqrt') ">Square Root</button>
    </div>

    <h3 id="result">Result: </h3>
  </div>
```

```
<script src="script.js"></script>
</body>
</html>
```

### **styles.css**

```
body {
  font-family: Arial, sans-serif;
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh;
  background-color: #f7f7f7;
}

.calculator {
  background-color: white;
  padding: 20px;
  border-radius: 10px;
  box-shadow: 0 0 15px rgba(0, 0, 0, 0.1);
  text-align: center;
}

h2 {
  margin-bottom: 20px;
}

input {
  width: 80%;
  padding: 10px;
  margin-bottom: 10px;
  font-size: 16px;
  border: 1px solid #ccc;
  border-radius: 5px;
}

.buttons {
  margin-bottom: 20px;
}
```

```
}
```

```
button {  
  padding: 10px 15px;  
  margin: 5px;  
  border: none;  
  background-color: #007BFF;  
  color: white;  
  border-radius: 5px;  
  font-size: 16px;  
  cursor: pointer;  
}
```

```
button:hover {  
  background-color: #0056b3;  
}
```

```
#result {  
  font-size: 20px;  
  font-weight: bold;  
  color: #333;  
}
```

### **script.js**

```
function calculate(operation) {  
  const input1 =  
parseFloat(document.getElementById("input1").value);  
  const input2 =  
parseFloat(document.getElementById("input2").value);  
  let result;  
  
  switch (operation) {  
    case 'sum':  
      result = input1 + input2;  
      break;  
    case 'difference':  
      result = input1 - input2;
```

```
        break;
    case 'product':
        result = input1 * input2;
        break;
    case 'quotient':
        result = input1 / input2;
        break;
    case 'remainder':
        result = input1 % input2;
        break;
    case 'power':
        result = Math.pow(input1, input2);
        break;
    case 'square':
        result = input1 ** 2;
        break;
    case 'sqrt':
        result = Math.sqrt(input1);
        break;
    case 'clear': cls();
    break;
    default:
        result = "Invalid Operation";
}

document.getElementById("result").innerText = "Result: " +
result;
}
```